
RECONNAISSANCE REPORT

September 2003

ROUGE RIVER WATERSHED, MICHIGAN

FLOOD HAZARD REDUCTION, RIVERINE ECOSYSTEM RESTORATION, AND RECREATIONAL DEVELOPMENT



**US Army Corps
of Engineers®**
Detroit District

Rouge River Watershed, Michigan

Reconnaissance Study Section 905(b) (WRDA 86) Analysis

Flood Hazard Reduction, Riverine Ecosystem Restoration, and Recreational Development

12 September 2003



**US Army Corps
of Engineers®**
Detroit District

EXECUTIVE SUMMARY

The Rouge River is located in southeast Michigan, primarily within the metropolitan Detroit area. Its watershed encompasses 48 communities and portions of 3 counties: Oakland, Washtenaw, and Wayne. The river extends 127 miles and drains approximately 467 square miles of the most densely populated urbanized land in the State of Michigan.

Congress (Energy and Water Development Appropriations Bill, 2002) has directed that a basin wide watershed management study be undertaken to address flood hazard reduction, riverine ecosystem, and recreation needs.

Local, county and state agencies have made significant accomplishments in restoration of the watershed. The watershed has been divided into seven (7) subwatersheds. The communities within each subwatershed formed an advisory group, which completed subwatershed management plans in 2001. The plans identified current river conditions, proposed goals, developed management actions, and identified ways to measure progress to protect and restore the beneficial uses of the river.

The purpose of this study is to evaluate the existing watershed conditions, identify problems and opportunities, formulate restoration alternatives, and determine if there is a Federal interest to participate in a cost shared project. This study will also identify any willing and able local sponsors to share in feasibility, design and construction costs for any project determined to have a Federal interest.

This study has concluded that there are projects within an area of the Rouge River Watershed known as the Gateway Area, which have Federal interest. The Gateway Area has been determined to have unique problems separate from the rest of the watershed, which are related to a Corps of Engineers flood control project completed during the mid-1970's. This report recommends more detailed evaluation in a feasibility phase for six (6) projects in the Gateway Area.

For the remainder of the watershed, outside the Gateway Area, funds have been provided by Congress to develop a Supplemental Watershed Management Plan. The Supplemental Watershed Management Plan will focus on flow management, watershed dams, and the only remaining cold water fishery within the watershed. The Supplemental Watershed Management Plan is ongoing and it is recommended that work on the plan continue until all appropriated funds have been expended. It is anticipated that as work on the Supplemental Watershed Management Plan progresses, potential projects with Federal interest may be identified. A modification to this reconnaissance report, or a new reconnaissance report will be prepared at that time to identify Federal interest.

Reconnaissance Report Rouge River Watershed, Michigan

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1) Study Authority	1
2) Study Purpose	1
3) Location of Study, Non-Federal Sponsor and Congressional District	1
4) Prior Reports and Existing Projects	2
5) Plan Formulation	5
(a) National Objectives	5
(b) Public Concerns	5
(c) Problems and Opportunities	6
(d) Planning Objectives	10
(e) Planning Constraints	10
(f) Management Measures to Address Identified	11
Project Site # 1 – Henry Ford Estate Dam Modification for Fish Passage	12
Project Site # 2 – Kingfisher Bluff Streambank Stabilization, Erosion Control, and Habitat Restoration	15
Project Site # 3 – Michigan Avenue and Evergreen Road Storm Water Treatment and Water Quality Improvement	16
Project Site # 4 - Tournament Players Golf Course Storm Water Treatment and Wetland Restoration	19
Project Site # 5 - Oakwood Common Oxbow Restoration	20
Project Site # 6 – Fordson Island Habitat Restoration	27
6) Standardized Output Units for Habitat Analysis	29
(a) Study Methodologies	51
(b) Conclusions from the Preliminary Screening	51
7) Real Estate	52
8) Federal Interest	54
9) Preliminary Financial Analysis	54
10) Assumptions and Exceptions	54
11) Feasibility Phase Milestones	56
12) Feasibility Phase Cost Estimate	57
13) Views of Other Resource Agencies	62
14) Potential Issues Affecting Initiation of Feasibility Phase	63
15) Recommendations	64

FIGURES AND MAPS

<u>FIGURE NUMBER</u>	<u>DESCRIPTION</u>
1	Rouge River Watershed Location Map
2	Rouge River Watershed Metropolitan Detroit Area
3	Rouge River Gateway Area (6 Project Sites)
4	Henry Ford Estate Fish Passage Site Location Plan
5	Kingfisher Bluff Plan of Restoration Area
6	Kingfisher Bluff Cross-Section of Restoration Area
7	Michigan Avenue/Evergreen Road Plan of Restoration Area
8	Michigan Avenue/Evergreen Road Alternative 1 Plan
9	Michigan Avenue/Evergreen Road Alternative 2 Plan
10	TPC Golf Course Site Location Plan
11	TPC Golf Course Plan of Restoration Area
12	Oakwood Common Site Location Plan
13	Oakwood Common Alternative 1 Plan
14	Oakwood Common Alternative 2 Plan
15	Oakwood Common Alternative 3 Plan
16	Fordson Island Site Location Plan
17	Fordson Island Plan of Restoration Area

ENVIRONMENTAL STANDARD OUTPUT AREA OF BENEFIT MAPS

<u>MAP NUMBER</u>	<u>DESCRIPTION</u>
1	Henry Ford Estate
2	Kingfisher Bluff
3	Michigan Avenue/Evergreen Road – Alternative 1
4	Michigan Avenue/Evergreen Road – Alternative 2
5	Tournament Plan Club (TPC) Golf Course
6	Oakwood Common – Alternative 1
7	Oakwood Common – Alternative 2
8	Oakwood Common – Alternative 3
9	Fordson Island